



## The Medical Home: a Role in Reducing Parenting Stress

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## Parent Stress and Children's Health

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- Countless articles describing increased stress among parents of children with special needs.
- Lack of information about positive benefits of having a medical home.
- Bidirectional relationship
  - Child behavior affects parent stress
  - Parent stress affects child behavior



## Parent Participation Program

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- Resides within Michigan's CSHCS program
- Developed in 1988 – an innovative practice
- Parents of CSHCN
  - Represent families on Title V administrative team
  - Act as consultants for other parents
  - Help shape program policies and procedures for parents



## Objectives

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- What health-related factors are associated with parenting stress in Michigan?
- Do parents of children with a medical home experience less parenting stress than parents of children without a medical home?
- What medical home dimensions are associated with less parenting stress?



## Study Design

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- Cross-sectional
  - 2003 National Survey of Children's Health
  - Telephone survey (SLAITS)
  - Michigan population, N=2,191 respondents
- Analysis
  - SAS v9.1, using survey procedures
  - Polytomous logistic regression



## CSHCN Definition

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- FACCT Screener used in 2001 National Survey of CSHCN
- Series of 3 questions for each of 5 needs
  - Does the child have \* need?
  - Does this need require health services more than the typical child?
  - Is the condition expected to last beyond the next 12 months?



## Medical Home

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- The Seven C's
  - aCcesible
  - Continuous
  - Comprehensive
  - Family-Centered
  - Coordinated
  - Compassionate
  - Culturally effective



## CAHPS-CCC Framework for Medical Home

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- Personal Doctor or Nurse (PDN)
  - Child has one or more persons whom the parent considers to be the child's personal doctor or nurse
- Coordinated Care
  - PDN helped direct the parent to specialty care for the child when it was needed
  - PDN helped direct the parent to special services, equipment, or counseling for the child when it was needed
  - PDN discussed special care or equipment that was needed



## CAHPS-CCC Framework for Medical Home

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- Family-Centered Care
  - PDN spends enough time with the child
  - PDN explains things understandably to the parent
- Accessible Care
  - Parents are able to get advice from the PDN over the telephone
  - Child is able to get care when wanted for illness or injury
- Culturally-sensitive Care
  - Interpreter was available for the child when needed



## CAHPS-CCC Framework for Medical Home

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- Comprehensive Care
  - Child was able to get specialty care when needed
  - Child was able to get special services, equipment, or counseling when needed
  - Child was able to get prescription medications when needed
  - Child was able to get mental health services when needed
  - Child was able to get medical care when needed
  - Child received preventive care in the past twelve months



## Parent Aggravation Scale

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- Four-question scale to classify parents with low, moderate, or high levels of parenting stress
  - Child is much harder to care for than most children?
  - Child does things that really bother you a lot?
  - Giving up more of your life to meet your child's needs than you ever expected?
  - Felt angry with your child?



## Parenting Stress Prevalence

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- Parents of 10.5% of children report high stress levels associated with parenting
- 'High' parent stress prevalence increased...
  - With decreasing income
  - With decreasing education
  - With increasing child age
  - Among single adult households

## Parenting Stress and Health Needs

	High Aggravation (%)	Moderate Aggravation (%)	Low Aggravation (%)
<b>CSHCN</b>	<b>19.8</b>	<b>70.5</b>	<b>9.7</b>
Behavioral Need	43.5	51.6	4.9
Other Need	11.2	77.4	11.4
<b>Not CSHCN</b>	<b>8.0</b>	<b>74.8</b>	<b>17.2</b>
<b>Health Insurance</b>			
Private	7.8	76.4	15.8
Medicaid	18.3	65.3	16.4
Uninsured	7.3	83.1	9.6
<b>Michigan</b>	<b>10.5</b>	<b>73.9</b>	<b>15.6</b>

## Parent Stress and the Medical Home

	High Aggravation (%)	Moderate Aggravation (%)	Low Aggravation (%)
<b>Medical Home</b>	<b>6.2</b>	<b>76.2</b>	<b>17.6</b>
<b>Comprehensive Care</b>	<b>8.4</b>	<b>75.6</b>	<b>16.0</b>
<b>Coordinated Care</b>	<b>14.5</b>	<b>74.1</b>	<b>11.4</b>
<b>Family-Centered</b>	<b>8.5</b>	<b>74.1</b>	<b>17.3</b>
<b>Accessible Care</b>	<b>9.0</b>	<b>74.5</b>	<b>16.4</b>
<b>Personal Doctor</b>	<b>9.7</b>	<b>74.5</b>	<b>15.7</b>
<b>Michigan</b>	<b>10.5</b>	<b>73.9</b>	<b>15.6</b>

## Parent Stress and Medical Home

	High vs. Moderate Aggravation OR* (95% CI)	Low vs. Moderate Aggravation OR* (95% CI)	P-value
Child has special needs	2.6 (1.8-3.9)	0.8 (0.5-1.2)	<0.0001
Child has a medical home	0.5 (0.3-0.8)	1.2 (0.9-1.6)	0.0008
Parent has support	0.4 (0.2-0.6)	1.4 (0.7-2.8)	0.0002
<b>By Age of the Child</b>			
Age 12 to 17 vs. 0 to 5	1.0 (0.6-1.6)	0.3 (0.2-0.5)	<0.0001
Age 6 to 11 vs. 0 to 5	0.8 (0.5-1.3)	0.4 (0.3-0.6)	
<b>By Health Insurance</b>			
No Insurance	0.7 (0.3-1.6)	0.5 (0.2-1.1)	0.0089
Public Insurance	1.9 (1.2-3.1)	0.8 (0.5-1.3)	
Private Insurance	Reference	Reference	

\*Adjusted for race, gender, poverty level, number of adults in household

## Parenting Stress and Medical Home Dimensions

	High vs. Moderate Aggravation OR* (95% CI)	Low vs. Moderate Aggravation OR* (95% CI)	P-value
Comprehensive Care	0.9 (0.6-1.4)	0.9 (0.7-1.4)	0.8598
Coordinated Care	1.3 (0.7-2.3)	1.0 (0.5-1.9)	0.7543
Family-Centered	0.6 (0.4-1.0)	1.5 (1.0-2.4)	0.0146
Accessible Care	0.9 (0.4-2.1)	0.7 (0.3-2.0)	0.8034
Personal Doctor	0.6 (0.4-1.0)	1.1 (0.7-1.7)	0.1402

\*Adjusted for age, race, gender, poverty, insurance, special need, number of adults in household, help with parenting



## Behavioral Needs and the Medical Home

	Behavioral Need % (SE)	Other Special Need % (SE)
<b>*Medical Home</b>	<b>10.6 (3.0)</b>	<b>45.1 (3.3)</b>
<b>*Comprehensive Care</b>	<b>29.7 (5.1)</b>	<b>75.8 (3.0)</b>
<b>Coordinated Care</b>	<b>37.0 (6.3)</b>	<b>51.3 (3.3)</b>
<b>Family-Centered</b>	<b>78.6 (4.9)</b>	<b>83.3 (2.8)</b>
<b>Accessible Care</b>	<b>86.2 (5.2)</b>	<b>91.1 (2.4)</b>
<b>Personal Doctor</b>	<b>93.5 (2.9)</b>	<b>94.2 (1.3)</b>

**\*p < 0.05**

## Behavioral Needs and Parenting Stress

	High vs. Moderate Aggravation OR* (95% CI)	Low vs. Moderate Aggravation OR* (95% CI)	P-value
<b>By Special Need</b>			<b>&lt;0.0001</b>
Behavioral need	6.9 (3.7-12.9)	0.6 (0.2-2.0)	
Other special need	1.4 (0.9-2.4)	0.8 (0.5-1.2)	
Child has a medical home	0.6 (0.4-0.9)	1.2 (0.9-1.6)	<b>0.0165</b>

**\*Adjusted for age, race, gender, poverty level, insurance, number of adults in household, help with parenting**

**Grouping of special needs children may bias conclusions!**



## Study Limitations

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- Medical home definitions vary by study
- Needs of children vary, thus the medical home has a different meaning for every child
- Outcome may affect exposure-parent stress may lead to behavioral needs
- Sample size of CSHCN in the NSCH is limited-may not have enough power



## Public Health Implications

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- Involve parents in decision-making
  - Individual care
  - Programs and policy-making
- Obtaining care for children may not only be important for child health, but parental health
- Factors predicting family-centered care may help in reducing stress for parents of CSHCN



THANK YOU!

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